CLAIMS

1. A method of making a silicone polymer and organic polymer containing alloy and/or hybrid emulsion composition comprising (i) preparing an emulsion containing a linear silicone polymer by emulsion polymerization in which (a) the ring of a cyclic siloxane oligomer is opened, in which (b) an hydroxy endblocked siloxane oligomer is condensed, using an acid or base catalyst in the presence of water, or in which (c) an hydrogen endblocked siloxane oligomer and a vinyl endblocked siloxane oligomer are reacted by hydrosilylation using a catalyst; (ii) adding to the emulsion in (i) components for preparing an emulsion containing an organic polymer by free radical emulsion polymerization of one or more ethylenically unsaturated organic monomers; and (iii) heating the emulsion from (ii).

2. A method according to Claim 1 in which the ethylenically unsaturated organic monomer is an acrylate ester, a methylacrylate ester, a fluorinated acrylate, a fluorinated methacrylate, acrylic acid, methacrylic acid, allyl methacrylate, dimethylaminoethyl methacryate, a vinyl halide, a vinyl ester, a vinyl aromatic compound, a vinyl ester of a monocarboxylic acid, or a vinyl pyrrolidone.

3. A method according to Claim 1 in which the components in (ii) comprise one or more organic monomers and a free radical initiator, and the components are added to the emulsion in (i) separately.

4. A method according to Claim 1 in which the components in (ii) comprise one or more organic monomers and a free radical initiator, and the components are added to the emulsion in (i) simultaneously.

5. A method according to Claim 1 in which the silicone polymer in (i) comprises a linear siloxane free of trifunctional T units $RSiO_{3/2}$ and tetrafunctional Q units $SiO_{4/2}$ capable of providing crosslinking of the silicone polymer or the reaction of the silicone polymer with the organic polymer; the organic polymer comprises a polymer free of silicon atoms; and the resulting emulsion is an aqueous emulsion containing an immiscible mixture of linear silicone polymers and organic polymers.

6. A method according to Claim 1 in which the ethylenically unsaturated organic monomer is selected from the group consisting of butyl acrylate, methyl acrylate, methyl methacrylate, methacrylic acid, allyl methacrylate, dimethylaminoethyl methacryate, 2-ethylhexyl acrylate, vinyl acetate, vinyl esters of monocarboxylic acids, vinyl pyrrolidone, and styrene.

7. A method according to Claim 1 in which the silicone polymer emulsion in (i) contains silicone polymer particles having an average particle diameter of 30-500 nanometer, and the viscosity of the phase containing the silicone polymer is 2,000-10,000,000 centistoke ($mm^2/s$).

8. A method of making a silicone polymer and organic polymer containing alloy and/or hybrid emulsion composition comprising (i) preparing a first emulsion containing a silicone polymer by emulsion polymerization in which (a) the ring of a cyclic siloxane oligomer is opened, in which (b) an hydroxy endblocked siloxane oligomer is condensed, using an acid or base catalyst in the presence of water, or in which (c) an hydrogen endblocked siloxane oligomer and a vinyl endblocked siloxane oligomer are reacted by hydrosilylation using a catalyst; (ii) preparing a second emulsion containing an organic polymer by free radical emulsion polymerization of an ethylenically unsaturated organic monomer; and combining the first and second emulsions.

9. A method according to Claim 8 in which the ethylenically unsaturated organic monomer is an acrylate ester, a methylacrylate ester, a vinyl halide, a vinyl ester, or a vinyl aromatic compound.

10. A method according to Claim 8 in which the silicone polymer in (i) comprises a linear siloxane free of trifunctional T units $RSiO_{3/2}$ and tetrafunctional Q units $SiO_{4/2}$ capable of providing crosslinking of the silicone polymer or the reaction of the silicone polymer with the organic polymer; the organic polymer comprises a polymer free of silicon atoms; and the resulting emulsion is an aqueous emulsion containing an immiscible mixture of linear silicone polymers and organic polymers.

11. A method according to Claim 8 in which the ethylenically unsaturated organic monomer is selected from the group consisting of butyl acrylate, methyl acrylate, methyl methacrylate, methacrylic acid, allyl methacrylate, dimethylaminoethyl methacryate, 2-ethylhexyl acrylate, vinyl acetate, vinyl esters of monocarboxylic acids, vinyl pyrrolidone, and styrene.

12. A method according to Claim 8 in which the first emulsion contains silicone polymer particles having an average particle diameter of 30-500 nanometer, and the viscosity of the phase containing the silicone polymer is 2,000-10,000,000 centistoke ($mm^2/s$).

13. An emulsion prepared according to any one of the methods of Claim 1 to 12.

15. A method of making a silicone polymer and organic polymer containing emulsion composition comprising (i) preparing an emulsion containing a linear silicone polymer by emulsion polymerization in which (a) the ring of a cyclic siloxane oligomer is opened, in which (b) an hydroxy endblocked siloxane oligomer is condensed, using an acid or base catalyst in the presence of water, or in which (c) an hydrogen endblocked siloxane oligomer and a vinyl endblocked siloxane oligomer are reacted by hydrosilylation using a catalyst; (ii) adding to the emulsion in (i) components for preparing an emulsion containing an organic polymer by free radical emulsion polymerization of an ethylenically unsaturated organic monomer; and (iii) heating the emulsion from (ii); and wherein the silicone polymer in (i) comprises a linear siloxane free of trifunctional T units $RSiO_{3/2}$ and tetrafunctional Q units $SiO_{4/2}$ capable of providing crosslinking of the silicone polymer or the reaction of the silicone polymer with the organic polymer; the organic polymer comprises a polymer free of silicon atoms; and the resulting emulsion is an aqueous emulsion containing an immiscible mixture of linear silicone polymers and organic polymers.

16. An emulsion prepared according to the method of Claim 15.